

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended): High purity zinc oxide powder having an impurity content excluding gas components of N, C, Cl, S and P of less than 10wtppm, and a total content of gas components of C, Cl and S of less than 100wtppm, a content of Na of 1wtppm or less, and a content of K of 1wtppm or less.

Claims 3-6 (canceled).

Claim 7 (currently amended): A manufacturing method of high purity zinc oxide powder including the steps of subjecting a raw material such as Zn-containing scrap to acid leaching with nitric acid or electrolytic extraction with ammonium nitrate solution, thereafter performing solvent extraction and activated carbon treatment thereto in order to remove impurities, neutralizing the resultant solution freed of impurities with an alkaline solution ammonium hydroxide to obtain zinc hydroxide, and firing the zinc hydroxide to obtain zinc oxide.

Claims 8-9 (canceled).

Claim 10 (previously presented): High purity zinc oxide powder according to claim 2, wherein said powder has an impurity content of Pb of less than 5wtppm.

Claim 11 (previously presented): High purity zinc oxide powder according to claim 10, wherein said powder has a content of Mg and Al of less than 1wtppm, respectively.

Claim 12 (previously presented): High purity zinc oxide powder according to claim 2, wherein said powder has a content of Mg and Al of less than 1wtppm, respectively.

Claim 13 (currently amended): A high purity zinc oxide sputtering target having an impurity content of N, C, Cl, S and P, excluding gas components, of less than 10wtppm, and a total content of gas components C, Cl and S of less than 100wtppm, a content of Na of 1wtppm or less, and a content of K of 1wtppm or less.

Claim 14 (previously presented): A sputtering target according to claim 13, wherein said zinc oxide target has a crystal grain size of 100 μ m or less.

Claim 15 (previously presented): A sputtering target according to claim 13, wherein said target has a content of Mg and Al of less than 1wtppm, respectively.

Claim 16 (previously presented): A sputtering target according to claim 13, wherein said target has an impurity content of Pb of less than 5wtppm.

Claim 17 (previously presented): A sputtering target according to claim 16, wherein said target has a content of Mg and Al of less than 1wtppm, respectively.

Claim 18 (previously presented): A sputtering target according to claim 17, wherein said zinc oxide target has a crystal grain size of 100 μ m or less.

Claim 19 (currently amended): A high purity zinc oxide thin film having an impurity content of N, C, Cl, S and P, excluding gas components, of less than 10wtppm, and a total content of gas components C, Cl and S of less than 100wtppm, a content of Na of 1wtppm or less, and a content of K of 1wtppm or less.

Claim 20 (previously presented): A thin film according to claim 19, wherein said zinc oxide thin film has a crystal grain size of 100 μ m or less.

Claim 21 (previously presented): A thin film according to claim 19, wherein said thin film has a content of Mg and Al of less than 1wtppm, respectively.

Claim 22 (previously presented): A thin film according to claim 19, wherein said thin film has an impurity content of Pb of less than 5wtppm.

Claim 23 (previously presented): A thin film according to claim 22, wherein said thin film has a content of Mg and Al of less than 1wtppm, respectively.

Claim 24 (previously presented): A thin film according to claim 23, wherein said zinc oxide thin film has a crystal grain size of 100 μ m or less.

Claim 25 (previously presented): A high purity zinc oxide powder according to claim 2, produced by a process comprising the steps of subjecting a raw material such as Zn-containing scrap to acid leaching or electrolytic extraction, thereafter performing solvent extraction and activated carbon treatment thereto in order to remove impurities, neutralizing the resultant solution freed of impurities with an alkaline solution to obtain zinc hydroxide, and firing the zinc hydroxide to obtain zinc oxide.

Claim 26 (previously presented): A method according to claim 7, wherein the grain size of the zinc oxide powder produced by the method is 0.1 to 100 μ m.

Claim 27 (previously presented): A method according to claim 7, wherein the zinc oxide powder produced by the method has an impurity content of N, C, Cl, S and P, excluding gas components, of less than 10wtppm and a total content of gas components C, Cl and S of less than 100wtppm.